

REMARKS

Favorable reconsideration and allowance of the subject application are respectfully requested in view of the following remarks.

Summary of the Office Action

The specification stands objected to.

Claim 1 stands rejected under 35 U.S.C. §102(e) as being anticipated by *Yoshida et al.* (U.S. Patent No. 6,496,170).

Claims 2-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Yoshida et al.*

Summary of the Response to the Office Action

The specification has been amended by this amendment. Applicants have amended claims 1 and 4, and cancelled claims 2-3 without prejudice or disclaimer. Accordingly, claims 1 and 4 are currently pending.

Objection to the Specification

The specification stands objected to for failing to provide proper antecedent basis for the claimed subject matter. In particular, the Office Action states that the term “unit” of the limitation “unit storage capacitance” is not disclosed in the specification. Accordingly, Applicants have amended the specification by including the term “unit.” Thus, Applicants respectfully request that the objection to the specification be withdrawn.

Claim Rejections Under 35 U.S.C. §§ 102(e) & 103(a)

Claim 1 stands rejected under 35 U.S.C. §102(e) as being anticipated by *Yoshida et al.* Claims 2-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Yoshida et al.* To

the extend that these rejections might be applied to the claims as newly-amended, they are respectfully traversed for at least the following reasons.

With regard to claims 2-3, Applicants respectfully request withdrawal of the rejections of claims 2-3 as the cancellation of claims 2-3 renders the rejections moot.

With regard to claims 1 and 4, Applicants respectfully submit that *Yoshida et al.* does not anticipate the present claimed invention or render the present claimed invention unpatentable, because *Yoshida et al.* does not disclose all of the features of claims 1 and 4. For instance, it is respectfully submitted that *Yoshida et al.* fails to teach or suggest the claimed combination as set forth in claim 1 including at least “wherein the smectic liquid crystal has spontaneous polarization in a range of $2\text{nC}/\text{cm}^2$ to $70\text{nC}/\text{cm}^2$ and a unit storage capacitance is in a range of $1\text{nF}/\text{cm}^2$ to $7\text{nF}/\text{cm}^2$ for optimizing transmittance depending on the spontaneous polarization of the smectic liquid crystal.” In addition, it is respectfully submitted that *Yoshida et al.* fails to teach or suggest the claimed combination as set forth in claim 4 including at least “wherein the smectic liquid crystal has spontaneous polarization in a range of $70\text{nC}/\text{cm}^2$ to $100\text{nC}/\text{cm}^2$ and a unit storage capacitance in a range of $5\text{nF}/\text{cm}^2$ to $13\text{nF}/\text{cm}^2$ for optimizing transmittance depending on the spontaneous polarization of the smectic liquid crystal.”

According to an embodiment of the instant invention as claimed, a value of unit storage capacitance is converted depending on the magnitude of spontaneous polarization of the ferroelectric liquid crystal. For example, as discussed at paragraph 42 of the original specification, as a capacitance is increased, a voltage holding ration (VHR) is increased and an aperture ratio is decreased. Accordingly, such a conversion of the unit storage capacitance is for setting a maximal transmittance by setting a range of the value of the unit storage capacitance, such that the increase of the VHR and the decrease of the aperture ratio become minimal.

Further, it is respectfully submitted that *Yoshida et al.* does not teach or suggest such conversion as set forth in Applicants' claimed combination. Accordingly, it is respectfully submitted that *Yoshida et al.* fails to teach or suggest the claimed combination as set forth in claim 1 including at least "wherein the smectic liquid crystal has spontaneous polarization in a range of $2\text{nC}/\text{cm}^2$ to $70\text{nC}/\text{cm}^2$ and a unit storage capacitance is in a range of $1\text{nF}/\text{cm}^2$ to $7\text{nF}/\text{cm}^2$ for optimizing transmittance depending on the spontaneous polarization of the smectic liquid crystal." In addition, it is respectfully submitted that *Yoshida et al.* fails to teach or suggest the claimed combination as set forth in claim 4 including at least "wherein the smectic liquid crystal has spontaneous polarization in a range of $70\text{nC}/\text{cm}^2$ to $100\text{nC}/\text{cm}^2$ and a unit storage capacitance in a range of $5\text{nF}/\text{cm}^2$ to $13\text{nF}/\text{cm}^2$ for optimizing transmittance depending on the spontaneous polarization of the smectic liquid crystal."

M.P.E.P. §2131 states "[t]o anticipate a claim, the reference must teach every element of the claim." In addition, M.P.E.P. §2143.03 instructs that "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." Applicants respectfully submit that since *Yoshida et al.* does not teach or suggest all of the features of claims 1 and 4, *Yoshida et al.* does not anticipate claim 1 or render claim 4 unpatentable. Accordingly, withdrawal of the rejection of claim 1 under 35 U.S.C. §102(e) and withdrawal of the rejection of claim 4 under 35 U.S.C. §103(a) are respectfully requested.

Conclusion

In view of the foregoing, withdrawal of the rejections and allowance of the pending claims are earnestly solicited. Should there remain any questions or comments regarding this

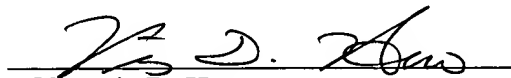
response or the application in general, the Examiner is urged to contact the undersigned at the number listed below.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

MORGAN, LEWIS & BOCKIUS LLP

By:



Victoria D. Hao

Registration No. 47,630

Dated: August 6, 2003

Customer No.: 009629

MORGAN, LEWIS & BOCKIUS LLP

1111 Pennsylvania Avenue, N.W.

Washington, D.C. 20004

Telephone: 202.739.3000

Facsimile: 202.739.3001